```
      Set  Items  Description
      ---  -----  -----------
? e au=krieg, arthur

Ref   Items  Index-term
E1        1   AU=KRIEG, ANJA
E2        1   AU=KRIEG, ARIBERT
E3        7  *AU=KRIEG, ARTHUR
E4        1   AU=KRIEG, ARTHUR F
E5       11   AU=KRIEG, ARTHUR F.
E6       73   AU=KRIEG, ARTHUR M
E7      253   AU=KRIEG, ARTHUR M.
E8        2   AU=KRIEG, B
E9      273   AU=KRIEG, B.
E10       4   AU=KRIEG, B. L.
E11       9   AU=KRIEG, B.L.
E12       1   AU=KRIEG, B.L. (PACIFIC GAS AND ELECTRIC CO., SAN

          Enter P or PAGE for more
? s e3-e7
               7  AU=KRIEG, ARTHUR
               1  AU=KRIEG, ARTHUR F
              11  AU=KRIEG, ARTHUR F.
              73  AU=KRIEG, ARTHUR M
             253  AU=KRIEG, ARTHUR M.
      S1     345  E3-E7
? s s1 and backbone
             345  S1
          281168  BACKBONE
      S2       4  S1 AND BACKBONE
? s s2/3,k/1-4
>>>Invalid syntax
? t s2/3,k/1-4
>>>KWIC option is not available in file(s): 399

 2/3,K/1     (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.

  139132442     CA: 139(9)132442u     PATENT
  Methods and products for enhancing immune responses using
  imidazoquinoline compounds in combination with modified immunostimulatory
  oligonucleotide
  INVENTOR(AUTHOR): Krieg, Arthur M.; Schetter, Christian; Bratzler, Robert
L.; Vollmer, Jorg; Jurk, Marion; Bauer, Stefan
  LOCATION: USA
  ASSIGNEE: University of Iowa Research Foundation
  PATENT: U.S. Pat. Appl. Publ. ; US 20030139364 A1  DATE: 20030724
  APPLICATION: US 272502 (20021015) *US PV329208 (20011012)
  PAGES: 112 pp.  CODEN: USXXCO  LANGUAGE: English
  PATENT CLASSIFICATIONS:
    CLASS:  514044000; A61K-048/00A; A61K-038/00B; G01N-033/53B;
A61K-031/56B; A61K-031/522B; A61K-031/4745B


 2/3,K/2     (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.

  138203655     CA: 138(14)203655h     PATENT
  Oligonucleotides containing stimulatory phosphorothioate motif and
  neutralizing motif for treating infections, allergies and cancers
  INVENTOR(AUTHOR): Krieg, Arthur M.; Vollmer, Jorg; Uhlman, Eugen
  LOCATION: USA
  ASSIGNEE: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical G.m.b.H.
; University of Iowa Research Foundation
  PATENT: PCT International ; WO 200315711 A2  DATE: 20030227
  APPLICATION: WO 2002US26468 (20020819) *US PV313273 (20010817) *US
PV393952 (20020703)
  PAGES: 115 pp.  CODEN: PIXXD2  LANGUAGE: English
  PATENT CLASSIFICATIONS:
    CLASS:  A61K-000/A
  DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;
GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;
LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SD; SE;
SG; SI; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ;
BY; KG; KZ; MD; RU; TJ; TM  DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD
; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR;
GB; GR; IE; IT; LU; MC; NL; PT; SE; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN;
GQ; GW; ML; MR; NE; SN; TD; TG


 2/3,K/3     (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.

  129023430     CA: 129(3)23430m     PATENT
  Immunostimulatory nucleic acid molecules
  INVENTOR(AUTHOR): Krieg, Arthur M.; Kline, Joel N.
  LOCATION: USA
  ASSIGNEE: University of Iowa Research Foundation; Krieg, Arthur M.;
Kline, Joel N.
  PATENT: PCT International ; WO 9818810 A1  DATE: 19980507
  APPLICATION: WO 97US19791 (19971030) *US 738652 (19961030)
  PAGES: 110 pp.  CODEN: PIXXD2  LANGUAGE: English
  PATENT CLASSIFICATIONS:
    CLASS:  C07H-021/00A; C07H-021/02B; C07H-021/04B; A61K-031/175B;
A61K-031/335B; A61K-031/47B; A61K-031/70B
  DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN;
CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; HU; IL; IS; JP; KE; KG; KP; KR; KZ;
LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU;
SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; US; UZ; VN; YU; ZW; AM; AZ;
BY; KG; KZ; MD; RU; TJ; TM  DESIGNATED REGIONAL: GH; KE; LS; MW; SD; SZ; UG
; ZW; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE;
BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG


 2/3,K/4     (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2010 American Chemical Society. All rts. reserv.

  123217687     CA: 123(17)217687x     JOURNAL
  Oligonucleotides with novel, cationic backbone substituents:
  aminoethylphosphonates
  AUTHOR(S): Fathi, Reza; Huang, Qing; Coppola, George; Delaney, William;
Teasdale, Rebecca; Krieg, Arthur M.; Cook, Alan F.
  LOCATION: PharmaGenics, Inc., Allendale, NJ, 07401, USA
  JOURNAL: Nucleic Acids Res.  DATE: 1994  VOLUME: 22  NUMBER: 24  PAGES:
5416-24  CODEN: NARHAD  ISSN: 0305-1048  LANGUAGE: English
? s backbone(w)modif? and (phos? or ?phos?)
Processing
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Processed  10 of  56 files ...
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Processed  20 of  56 files ...
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>>>File 399 processing for PHOS? stopped at PHOSPHOROHYDRAZINOTHIOATES
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Processed  30 of  56 files ...
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Processed  40 of  56 files ...
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Processing
Processed  50 of  56 files ...
Processing
Completed processing all files
          281168  BACKBONE
         7275132  MODIF?
            3266  BACKBONE(W)MODIF?
         9761916  PHOS?
            4679  ?PHOS?
      S3    1229  BACKBONE(W)MODIF? AND (PHOS? OR ?PHOS?)
? s s3 and (immuno? or inihibit? or ?immuno? or ?suppre? or ?stimul?)
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Processed  30 of  56 files ...
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Processed  40 of  56 files ...
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Processed  50 of  56 files ...
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Processing
Completed processing all files
             1229  S3
         15528524  IMMUNO?
              979  INHIBIT?
              316  ?IMMUNO?
              119  ?SUPPRE?
           163510  ?STIMUL?
      S4      175  S3 AND (IMMUNO? OR INHIBIT? OR ?IMMUNO? OR ?SUPPRE? OR
                   ?STIMUL?)
? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.
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? s s5 and ?tcgtcgttttgtcgttttttttcga?
Processed  10 of  56 files ...
Processed  20 of  56 files ...
Processed  30 of  56 files ...
Processed  40 of  56 files ...
Processed  50 of  56 files ...
Completed processing all files
              113  S5
                0  ?TCGTCGTTTTGTCGTTTTTTTTCGA?
      S6        0  S5 AND ?TCGTCGTTTTGTCGTTTTTTTTCGA?
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? ds

Set      Items   Description
S1         345   E3-E7
S2           4   S1 AND BACKBONE
S3        1229   BACKBONE(W)MODIF? AND (PHOS? OR ?PHOS?)
S4         175   S3 AND (IMMUNO? OR INHIBIT? OR ?IMMUNO? OR ?SUPPRE? OR ?S-
              TIMUL?)
S5         113   RD  (unique items)
S6           0   S5 AND ?TCGTCGTTTTGTCGTTTTTTTTCGA?
? t s5/3,k/1-15
>>>KWIC option is not available in file(s): 399

 5/3,K/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

0020822059   BIOSIS NO.: 200900162393
Immunostimulation and anti-DNA antibody production by backbone
  modified CpG-DNA
AUTHOR: Kim Dongbum; Rhee Jae Won; Kwon Sanghoon; Sohn Wern-Joo; Lee
  Younghee; Kim Dae-Won; Kim Doo-Sik; Kwon Hyung-Joo (Reprint)
AUTHOR ADDRESS: Hallym Univ, Coll Med, Ctr Med Sci Res, 39 Hallymdaehak
  Gil, Gangwon Do 200702, South Korea**South Korea
AUTHOR E-MAIL ADDRESS: hjookwon@hallym.ac.kr
JOURNAL: Biochemical and Biophysical Research Communications  379 (2): p
362-367 FEB 6 2009 2009
ITEM IDENTIFIER: doi:10.1016/j.bbrc.2008.12.063
```

ISSN: 0006-291X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Immunostimulation and anti-DNA antibody production by backbone modified CpG-DNA

ABSTRACT: Oligodeoxynucleotides containing immunostimulatory CpG motifs (CpG-DNA) have gained attention as potentially useful therapeutics. However, the phosphorothioate-modified CpG-DNAs (PS-ODN) can induce backbone-related side effects. Here, we compared the immunostimulatory activity of natural phosphodiester CpG-DNA (PO-ODN) from Mycobacterium bovis and PS-ODN in mice. Both PO-ODN...

...numbers. or IgM production. These results may provide an explanation for the side effects in immunotherapeutic application of PS-ODN. They also suggest that PO-ODN may be more optimal than...

...REGISTRY NUMBERS: phosphorothioate
DESCRIPTORS:
  CHEMICALS & BIOCHEMICALS: IgM {immunoglobulin M...

...phosphodiester; ...

...phosphorothioate--
  METHODS & EQUIPMENT: immunostimulation--...

...laboratory techniques, immunologic techniques

5/3,K/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

19332405 BIOSIS NO.: 200600677800
Synthesis and conformational studies of glycosylated beta-peptides
AUTHOR: Norgren A S (Reprint); Arvidsson P I
AUTHOR ADDRESS: Dept Biochem and Organ Chem, Uppsala, Sweden**Sweden
JOURNAL: Journal of Peptide Science 12 (Suppl. S): p101 2006 2006
CONFERENCE/MEETING: 29th European Peptide Symposium Gdansk, POLAND September 03 -08, 2006; 20060903
ISSN: 1075-2617
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

DESCRIPTORS:
  CHEMICALS & BIOCHEMICALS: ...phosphoryl residue
  MISCELLANEOUS TERMS: ...backbone modification; ...

...immunodifferentiation;
CONCEPT CODES:

5/3,K/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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17657292 BIOSIS NO.: 200400028049
NF-kappaB-dependent regulation of tumor necrosis factor-alpha gene expression by CpG-oligodeoxynucleotides.
AUTHOR: Kwon Hyung-Joo; Lee Keun-Wook; Yu Sang Ho; Han Jung Ho; Kim Doo-Sik

(Reprint)
AUTHOR ADDRESS: Institute of Life Science and Biotechnology, Yonsei
University, Seoul, 120-749, South Korea**South Korea
AUTHOR E-MAIL ADDRESS: dskim@yonsei.ac.kr
JOURNAL: Biochemical and Biophysical Research Communications 311 (1): p
129-138 November 7, 2003 2003
MEDIUM: print
ISSN: 0006-291X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Immunostimulatory activities of synthetic oligodeoxynucleotides containing CpG motifs (CpG-ODNs) have gained attention as potentially useful immunotherapeutics. However, CpG-ODNs induce harmful and lethal shock effects because they greatly enhance the sequence-dependent induction of tumor necrosis factor-alpha (TNF-alpha). We have shown that phosphorothioate-modified oligodeoxynucleotides (PS-ODNs) of the CpG-ODN 1826 stimulate TNF-alpha gene expression, TNF-alpha promoter activity, IkappaB degradation, and NF-kappaB activation at higher levels compared with its phosphodiester ODN (PO-ODN). In contrast to the effects of CpG-ODN 1826, PS-ODN of...

...the innate immune responses by modulating the potency of CpG-ODNs via sequence rearrangement and phosphorothioate backbone modification.

DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: ...immunologic-drug...

...phosphodiester oligodeoxynucleotide...

...immunologic-drug

5/3,K/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

17117859 BIOSIS NO.: 200300076578
Phosphorothioate backbone modification changes the
pattern of responses to CpG
BOOK TITLE: Microbial DNA and host immunity
AUTHOR: Stacey Katryn J (Reprint); Sester David P; Naik Shalin; Roberts
Tara L (Reprint); Sweet Matthew J (Reprint); Hume David A
BOOK AUTHOR/EDITOR: Raz Eyal (Editor)
AUTHOR ADDRESS: Institute for Molecular Bioscience, University of
Queensland, Brisbane, QLD, Australia**Australia
p63-77 2002
MEDIUM: print
BOOK PUBLISHER: Humana Press Inc., 999 Riverview Drive, Suite 208, Totowa,
NJ, 07512, USA
ISBN: 1-58829-022-0 (cloth)
DOCUMENT TYPE: Book Chapter
RECORD TYPE: Citation
LANGUAGE: English

Phosphorothioate backbone modification changes the
pattern of responses to CpG
DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: ...phosphorothioate backbone...

...immunostimulatory DNA

5/3,K/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

16743375 BIOSIS NO.: 200200336886
Phosphodiester CpG oligonucleotides as adjuvants: Polyguanosine runs enhance cellular uptake and improve immunostimulative activity of phosphodiester CpG oligonucleotides in vitro and in vivo
AUTHOR: Dalpke Alexander H; Zimmermann Stefan; Albrecht Inka; Heeg Klaus (Reprint)
AUTHOR ADDRESS: Institute of Medical Microbiology and Hygiene, Philipps-University Marburg, Pilgrimstein 2, 35037, Marburg, Germany** Germany
JOURNAL: Immunology 106 (1): p102-112 May, 2002 2002
MEDIUM: print
ISSN: 0019-2805
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Phosphodiester CpG oligonucleotides as adjuvants: Polyguanosine runs enhance cellular uptake and improve immunostimulative activity of phosphodiester CpG oligonucleotides in vitro and in vivo

...ABSTRACT: g. antigen-presenting cells (APC). The rate of uptake is influenced by the DNA's backbone modification and critically determines activity of CpG-DNA. CpG ODN with a phosphothioate backbone (PTO) are currently used for most in vivo and in vitro studies, since PTO...

...To circumvent these restrictions we investigated the effects of DNA sequence as well as DNA backbone modification on cellular uptake and resulting immunostimulation. We show here that uptake of phosphodiester (PO)-CpG-ODN can be strongly enhanced by poly guanosine runs added at the 3' end of the ODN. In addition these ODN showed an improved immunostimulatory activity in vivo and in vitro. This included protection of mice against lethal Th2-dependent...

DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: ...phosphodiester CpG oligonucleotides ...

...cellular uptake, immunostimulative activity...

...phosphothioate backbone {PTO

5/3,K/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2009 The Thomson Corporation. All rts. reserv.

09634850 BIOSIS NO.: 198987082741
CHARACTERIZATION OF A BROADLY EXPRESSED HUMAN LEUKOCYTE SURFACE ANTIGEN MEM-43 ANCHORED IN MEMBRANE THROUGH PHOSPHATIDYLINOSITOL
AUTHOR: STEFANOVA I (Reprint); HILGERT I; KRISTOFOVA H; BROWN R; LOW M G; HOREJSI V
AUTHOR ADDRESS: INST MOLECULAR GENETICS, CZECH ACAD SCI, VIDENSKA 1083, 14220 PRAHA 4, CZECH**CZECHOSLOVAKIA
JOURNAL: Molecular Immunology 26 (2): p153-162 1989
ISSN: 0161-5890

DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

CHARACTERIZATION OF A BROADLY EXPRESSED HUMAN LEUKOCYTE SURFACE ANTIGEN MEM-43 ANCHORED IN MEMBRANE THROUGH PHOSPHATIDYLINOSITOL

...ABSTRACT: absent from U937, Nalm-6, D Daudi and Raji cell lines. The antigen isolated by immunoaffinity chromatography from several cell lines is an 18,000-25,000 mol. wt glycoprotein. An...

...isolated from erythrocytes binds to several lectins and has a 14,000 mol. wt polypeptide backbone, modified by an endoglycosidase F-sensitive carbohydrate moiety. The epitope recognized is reduction-sensitive. The sequence...

...antigen Ly-6C. The antigen is completely released from the cell surface after treatment with phosphatidylinositol-specific phospholipase C.

DESCRIPTORS: ERYTHROCYTE PERIPHERAL BLOOD LEUKOCYTE MONOCLONAL ANTIBODY MOLECULAR SEQUENCE DATA AMINO ACID SEQUENCE IMMUNOAFFINITY CHROMATOGRAPHY

5/3,K/7 (Item 1 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0003940158 IP ACCESSION NO: 11177441
Is antisense an appropriate nomenclature or design for oligodeoxynucleotides aimed at the inhibition of HIV-1 replication?

Lavigne, Carole; Yelle, Jocelyn; Sauve, Gilles; Thierry, Alain R
Department de Microbiologie et Immunologie, Faculte de Medecine, Universite de Montreal, H3C 3J7 Montreal, Quebec, Canada,
[mailto:thierry1@micronet.fr]

AAPS Journal, v 4, n 2, p 34-44, June 2002
PUBLICATION DATE: 2002

PUBLISHER: American Association of Pharmaceutical Scientists

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 1550-7416
FILE SEGMENT: Virology & AIDS Abstracts
ABSTRACT:
We have evaluated the specificity and the variation in activity against human immunodeficiency virus (HIV) infection of antisense oligodeoxynucleotides (ODNs) with regard to factors such as dose-response range, number and choice of experimental controls, backbone modifications of the ODNs, type of cell infection, length of assays, and delivery approach. The highest...

...assay with MOLT-3 cells acutely infected with HIV-1 (IIIB0 and treated with free phosphorothioate-modified ODNs (PS-ODNs). The highest level of specificity was observed in our short-term..

DESCRIPTORS: Antisense oligonucleotides; Antiviral activity; Data processing; Infection; Nomenclature; Oligonucleotides; Replication;

Human immunodeficiency virus 1

5/3,K/8 (Item 2 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts
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0002240493 IP ACCESSION NO: 4872273
Site-Specific Administration of Antisense Oligonucleotides using
Biodegradable Polymer Microspheres Provides Sustained Delivery and Improved
Subcellular Biodistribution in the Neostriatum of the Rat Brain

Khan, A; Sommer, W; Fuxe, K; Akhtar, S
Pharmaceutical Sciences Research Institute, Aston University, Aston
Triangle, Birmingham B4 7ET, UK, [mailto:S.Akhtar@aston.ac.uk]

Journal of Drug Targeting, v 8, n 5, p 319-334, 2000
PUBLICATION DATE: 2000

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 1061-186X
FILE SEGMENT: Medical & Pharmaceutical Biotechnology Abstracts

ABSTRACT:
... site-specific delivery system for targeting ODNs to the neostriatum of
the rat brain. Model phosphorothioate backbone-modified
ODNs were entrapped within poly(D,L-lactide-co-glycolide) (PLAGA)
microspheres using a double...

...and the fluorescence appeared to be diffuse covering both cytosolic and
nuclear regions. Dual-label immunohistochemical analyses suggested
that ODNs were mainly distributed to neuronal cells. These data indicate
that site...

5/3,K/9 (Item 3 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0002138198 IP ACCESSION NO: 4780087
Phosphorothioate Backbone Modification Modulates
Macrophage Activation by CpG DNA

Sester, DP; Naik, S; Beasley, SJ; Hume, DA; Stacey, KJ*
Institute for Molecular Bioscience, University of Queensland, Brisbane
4072, Australia, [mailto:K.Stacey@imb.uq.edu.au]

Journal of Immunology, v 165, n 8, p 4165-4173, October 15, 2000
PUBLICATION DATE: 2000

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0022-1767
FILE SEGMENT: Immunology Abstracts; Nucleic Acids Abstracts

Phosphorothioate Backbone Modification Modulates
Macrophage Activation by CpG DNA
ABSTRACT:

Macrophages respond to unmethylated CpG motifs present in nonmammalian DNA. Stabilized phosphorothioate-modified oligodeoxynucleotides (PS-ODN) containing CpG motifs form the basis of immunotherapeutic agents. In this study, we show that PS-ODN do not perfectly mimic native DNA...

...CpG-containing PS-ODN were active at 10- to 100-fold lower concentrations than corresponding phosphodiester ODN in maintenance of cell viability in the absence of CSF-1, in induction of...

...components may contribute to this, as PS-ODN were slower and less effective at inducing phosphorylation of the extracellular signal-related kinases 1 and 2. In addition, at high concentrations, non-CpG PS-ODN specifically inhibited responses to CpG DNA, whereas nonstimulatory phosphodiester ODN had no such effect. Although nonstimulatory PS-ODN caused some inhibition of ODN uptake...

...did not adequately explain the levels of inhibition of activity. The results demonstrate that the phosphorothioate backbone has both enhancing and inhibitory effects on macrophage responses to CpG DNA.
DESCRIPTORS: Macrophages; phosphorothioate; oligodeoxynucleotides
IDENTIFIERS: CpG motifs; immunology
...SUBJ CATG: Immunological aspects

5/3,K/10 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

13195519 Genuine Article#: 857EB No. References: 41
Title: C-class CpG ODN: sequence requirements and characterization of immunostimulatory activities on mRNA level
Author: Jurk M (REPRINT) ; Schulte B; Kritzler A; Noll B; Uhlmann E; Wader T; Schetter C; Krieg AM; Vollmer J
Author Email Address: mjurk@coleypharma.com
Corporate Source: Coley Pharmaceut GMBH,Elisabeth Selbert Str 9/D-40764 Langenfeld//Germany/ (REPRINT); Coley Pharmaceut GMBH,D-40764 Langenfeld//Germany/; Coley Pharmaceut Grp Inc,Wellesley//MA/
Journal: IMMUNOBIOLOGY, 2004, V209, N1-2, P141-154
ISSN: 0171-2985 Publication Date: 20040000
Publisher: URBAN & FISCHER VERLAG, BRANCH OFFICE JENA, P O BOX 100537, D-07705 JENA, GERMANY
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: C-class CpG ODN: sequence requirements and characterization of immunostimulatory activities on mRNA level
...Abstract: sequence requirements of C-Class ODN regarding optimal IFN-alpha secretion. Sequence as well as backbone modifications like 2'-O-methyl modifications especially in the 5' part of the ODN influence IFN...
...Identifiers: PLASMACYTOID DENDRITIC CELLS; IFN-GAMMA PRODUCTION; HUMAN B-CELLS; BACTERIAL-DNA; PHOSPHOROTHIOATE OLIGODEOXYNUCLEOTIDE; IMMUNE STIMULATION; OLIGONUCLEOTIDE SEQUENCES; CXC CHEMOKINES; IN-VITRO; T-CELLS

5/3,K/11 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

10916029 Genuine Article#: 584MJ No. References: 45
Title: Is antisense an appropriate nomenclature or design for oligodeoxynucleotides aimed at the inhibition of HIV-1 replication? -

art. no. 9
Author: Lavigne C; Yelle J; Sauve G; Thierry AR (REPRINT)
Corporate Source: Lab Def Antivirales & Antitumorales,UMR 5124, MedinCell
Project,Case Courrier 27,1919,Route Mende/F-34293 Montpellier
5//France/ (REPRINT); Lab Def Antivirales & Antitumorales,UMR 5124,
MedinCell Project,F-34293 Montpellier 5//France/; Univ Quebec,Inst
Armand Frappier,Laval/PQ H7N 4Z3/Canada/; NCI,Tumor Cell Biol Lab,
NIH,Bethesda//MD/20892
Journal: AAPS PHARMSCI, 2002, V4, N2, P9-9
ISSN: 1522-1059 Publication Date: 20020000
Publisher: AMER ASSOC PHARMACEUTICAL SCIENTISTS, 1650 KING ST, STE 200,
ALEXANDRIA, VA 22314-2747 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Abstract: We have evaluated the specificity and the variation in activity
against human immunodeficiency virus (HIV) infection of antisense
oligodeoxynucleotides (ODNs) with regard to factors such as
dose-response range, number and choice of experimental controls,
backbone modifications of the ODNs, type of cell infection,
length of assays, and delivery approach. The highest...

...assay with MOLT-3 cells acutely infected with HIV-1 (IIIB) and treated
with free phosphorothioate-modified ODNs (PS-ODNs). The highest
level of specificity was observed in our short-term..
...Identifiers: HUMAN-IMMUNODEFICIENCY-VIRUS; SEQUENCE-SPECIFIC
INHIBITION; CHRONICALLY INFECTED-CELLS; PHOSPHOROTHIOATE
OLIGODEOXYNUCLEOTIDE; GENE-EXPRESSION; HTLV-III; TYPE-1;
OLIGONUCLEOTIDES; PHARMACOKINETICS; RNA

5/3,K/12 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

09609746 Genuine Article#: 427CG No. References: 32
Title: Lipid-based delivery of combinations of antisense
oligodeoxynucleotides for the in vitro inhibition of HIV-1 replication
Author: Lavigne C (REPRINT) ; Yelle J; Sauve G; Thierry AR
Corporate Source: Medincell Project,6 Rue des Monts du Vivarais/F-31240
Lunion//France/ (REPRINT); Medincell Project,F-31240 Lunion//France/;
Univ Montreal,Fac Med, Dept Microbiol & Immunol,Montreal/PQ H3C
3J7/Canada/; Univ Quebec,Inst Armand Frappier,Laval/PQ H7N 4Z3/Canada/;
NCI,Tumor Cell Biol Lab, NIH,Bethesda//MD/20892
Journal: AAPS PHARMSCI, 2001, V3, N1, PU86-U97
ISSN: 1522-1059 Publication Date: 20010000
Publisher: AMER ASSOC PHARMACEUTICAL SCIENTISTS, 1650 KING ST, STE 200,
ALEXANDRIA, VA 22314-2747 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: a combination strategy in cell cultures including ODN
concentrations, type of infection (acute vs chronic), backbone
modification of the ODN, and the number of sequences. When
delivered by the DLS carrier system..

...might block an early step of virus replication by combined inhibitory
effects. Various combinations of phosphorothioate-modified (PS)
and unmodified oligonucleotides delivered by the DLS system were
compared for their antiviral...

...using HIV-T (IIIB strain)-infected MOLT-3 cells. The most effective
combination had 3 phosphorothioate antisense ODNs: Srev, SDIS,
and SPac (>99% inhibition at 100 pM). However, the additive effect...
...Identifiers: HUMAN-IMMUNODEFICIENCY-VIRUS; HTLV-III; TYPE-1 RNA;

PHOSPHOROTHIOATE; OLIGONUCLEOTIDES; SEQUENCE; PHARMACOKINETICS; COMPLEMENTARY; EXPRESSION; AIDS

5/3,K/13 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

07244402 Genuine Article#: 140QK No. References: 42
Title: Coactivator OBF-1 makes selective contacts with both the POU-specific domain and the POU homeodomain and acts as a molecular clamp on DNA
Author: Sauter P; Matthias P (REPRINT)
Corporate Source: FRIEDRICH MIESCHER INST,MAULBEERSTR 66, POB 2543/CH-4058 BASEL//SWITZERLAND/ (REPRINT); FRIEDRICH MIESCHER INST,/CH-4058 BASEL//SWITZERLAND/
Journal: MOLECULAR AND CELLULAR BIOLOGY, 1998, V18, N12 (DEC), P7397-7409
ISSN: 0270-7306 Publication Date: 19981200
Publisher: AMER SOC MICROBIOLOGY, 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: differently in the presence of OBF-1 compared to the POU domain alone, and using phosphothioate backbone-modified probes in electrophoretic mobility shift assays, we identified several positions influencing ternary complex formation. We ...

...Identifiers: CELL-SPECIFIC COACTIVATOR; BINDING TRANSCRIPTION FACTORS; OCA-B; FUNCTIONAL-CHARACTERIZATION; IMMUNOGLOBULIN PROMOTERS; ACTIVATION DOMAINS; CRYSTAL-STRUCTURE; MURINE HOMOLOG; HOMEO DOMAIN; OCT-1

5/3,K/14 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

07029568 Genuine Article#: 116JT No. References: 291
Title: Modified oligonucleotides: Synthesis and strategy for users
Author: Verma S (REPRINT) ; Eckstein F
Corporate Source: MAX PLANCK INST EXPT MED,HERMANN REIN STR 3/D-37075 GOTTINGEN//GERMANY/ (REPRINT)
Journal: ANNUAL REVIEW OF BIOCHEMISTRY, 1998, V67, P99-134
ISSN: 0066-4154 Publication Date: 19980000
Publisher: ANNUAL REVIEWS INC, 4139 EL CAMINO WAY, PO BOX 10139, PALO ALTO, CA 94303-0139
Language: English Document Type: REVIEW (ABSTRACT AVAILABLE)

...Abstract: and nucleic acid cross-linking studies.

The automation of oligonucleotide synthesis, the development of versatile phosphoramidite reagents, and efficient scale-up have expanded the application of modified oligonucleotides to diverse areas ...

...biological research. Numerous reports have covered oligonucleotides for which modifications have been made of the phosphodiester backbone, of the purine and pyrimidine heterocyclic bases, and of the sugar moiety; these modifications...

...such chemically modified oligonucleotides. Because of space limitations, we discuss only those oligonucleotides that contain phosphate and phosphate analogs as internucleotidic linkages.

```
...Descriptors: oligonucleotide analogs ; backbone
    modifications ; base modifications ; sugar modifications ;
    reporter groups
...Identifiers: LINKING; TRIPLE-HELIX FORMATION; STRAND DISPLACEMENT
    AMPLIFICATION; NUCLEOTIDE ANALOG 2-AMINOPURINE; TETRAHYMENA RIBOZYME
    REACTION; HUMAN-IMMUNODEFICIENCY-VIRUS


 5/3,K/15     (Item 6 from file: 34)
DIALOG(R)File  34:SciSearch(R) Cited Ref Sci
(c) 2009 The Thomson Corp. All rts. reserv.

05255305   Genuine Article#: VM029   No. References: 183
Title: STRUCTURAL ASPECTS OF NUCLEIC-ACID ANALOGS AND ANTISENSE
    OLIGONUCLEOTIDES
Author: EGLI M
Corporate Source: NORTHWESTERN UNIV,SCH MED,DEPT BIOL CHEM & MOL
    PHARMACOL,303 E CHICAGO AVE/CHICAGO//IL/60611
Journal: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION IN ENGLISH, 1996, V35, N17
 (SEP 20), P1895-1910
ISSN: 0570-0833
Language: ENGLISH   Document Type: REVIEW

...Identifiers: FORMATION; B-DNA DODECAMER; X-RAY CRYSTAL;
    MOLECULAR-STRUCTURE; GENE-EXPRESSION; CONFORMATIONAL FLEXIBILITY;
    INTERNUCLEOSIDE LINKAGES; PHOSPHODIESTER LINKAGE; CARBOCYCLIC
    THYMIDINE; BACKBONE MODIFICATION
...Research Fronts: ANGSTROM RESOLUTION; REFINED CRYSTAL-STRUCTURE;
    KNOWLEDGE-BASED PROTEIN MODELING)
  94-1702 001    (HAMMERHEAD RIBOZYME; HUMAN-IMMUNODEFICIENCY-VIRUS
    TYPE-1 RNAS IN-VITRO; INTRACELLULAR ANTI-REV SINGLE-CHAIN ANTIBODY)
  94-4790 001...
? ds

Set     Items   Description
S1        345   E3-E7
S2          4   S1 AND BACKBONE
S3       1229   BACKBONE(W)MODIF? AND (PHOS? OR ?PHOS?)
S4        175   S3 AND (IMMUNO? OR INIHIBIT? OR ?IMMUNO? OR ?SUPPRE? OR ?S-
             TIMUL?)
S5        113   RD  (unique items)
S6          0   S5 AND ?TCGTCGTTTTGTCGTTTTTTTCGA?

? E AU=KLINMAN, DENNIS?

Ref   Items  Index-term
E1        1  AU=KLINMAN, DENNIS MARC
E2        1  AU=KLINMAN, DENNIS R.
E3        0 *AU=KLINMAN, DENNIS?
E4      117  AU=KLINMAN, DM
E5       20  AU=KLINMAN, DM*
E6        1  AU=KLINMAN, DR
E7        2  AU=KLINMAN, EVA
E8        2  AU=KLINMAN, J.
E9        2  AU=KLINMAN, J. P
E10      23  AU=KLINMAN, J. P.
E11       1  AU=KLINMAN, J.P
E12      30  AU=KLINMAN, J.P.

          Enter P or PAGE for more
? S E1-E6
               1  AU=KLINMAN, DENNIS MARC
               1  AU=KLINMAN, DENNIS R.
```

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                0  AU=KLINMAN, DENNIS?
              117  AU=KLINMAN, DM
               20  AU=KLINMAN, DM*
                1  AU=KLINMAN, DR
      S1      140  E1-E6
? S S1 AND RESPONSE
              140  S1
         13463981  RESPONSE
      S2       69  S1 AND RESPONSE
? RD

>>>Duplicate detection is not supported for File 391.

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
      S3       61  RD  (unique items)
? T S3/3,K/1-5
>>>KWIC option is not available in file(s): 399

 3/3,K/1     (Item 1 from file: 24)
DIALOG(R)File  24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0003216277       IP ACCESSION NO: 7870143
Response of peripheral blood mononuclear cells from lupus patients to
stimulation by CpG oligodeoxynucleotides

Zeuner, RA;  Klinman, DM;  Illei, G;  Yarboro, C;  Ishii, KJ;
Gursel, M;  Verthelyi, D

Rheumatology, v 42, n 4, p 563, April 2003
PUBLICATION DATE: 2003

PUBLISHER: Oxford University Press, Oxford Journals, Great Clarendon Street

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 1462-0324
ELECTRONIC ISSN: 1462-0332
FILE SEGMENT: Immunology Abstracts

Response of peripheral blood mononuclear cells from lupus patients to
stimulation by CpG oligodeoxynucleotides

Zeuner, RA;  Klinman, DM;  Illei, G;  Yarboro, C;  Ishii, KJ;
Gursel, M;  Verthelyi, D


ABSTRACT:
...  to the initiation and/or perpetuation of the disease. This study
characterizes the in vitro response of peripheral blood mononuclear
cells (PBMC) from SLE patients to CpG DNA. Methods. Secretion of...

...co-stimulatory molecules and the secretion of interferon-[alpha] and
interleukin-6 (IL-6) in response to CpG ODN was significantly reduced
in monocytes and dendritic cells from SLE patients. Secretion...

...by natural killer (NK) cells was also reduced. In contrast, the IgM and
IL-10 response of B cells to CpG ODN was normal. Conclusion.
Monocytes, dendritic cells and NK cells...
```

3/3,K/2 (Item 2 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0002811614 IP ACCESSION NO: 6687903
Prime-boost vaccination with plasmid DNA and a chimeric adenovirus type 5 vector with type 35 fiber induces protective immunity against HIV

Xin, K-Q; Jounai, N; Someya, K; Honma, K; Mizuguchi, H; Naganawa, S; Kitamura, K; Hayakawa, T; Saha, S; Takeshita, F; Okuda, K; Honda, M; Klinman, DM; Okuda, K
Department of Molecular Biodefense Research, Yokohama City University, Graduate School of Medicine, 3-9 Fukuura, Kanazawa-ku, Yokohama 236-0004, Japan

Gene Therapy, v 12, n 24, p 1769-1777, December 2005
PUBLICATION DATE: 2005

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0969-7128
FILE SEGMENT: Nucleic Acids Abstracts; Medical & Pharmaceutical Biotechnology Abstracts
...H; Naganawa, S; Kitamura, K; Hayakawa, T; Saha, S; Takeshita, F; Okuda, K; Honda, M; Klinman, DM; Okuda, K

ABSTRACT:
... DNA vaccine prime followed by an adenovirus type 5 (Add) boost elicited a protective immune response against SHIV challenge in monkeys. However, the hepatocellular tropism of Ad5 limits the safety of...

DESCRIPTORS: DNA vaccines; Immunity; Fibers; Immunogenicity; Vaccines; Animal models; Plasmids; hepatotoxicity; Expression vectors; Immune response; Tropism; Gene therapy; Vaccination; Human immunodeficiency virus; Adenovirus; Vaccinia virus; Macaca mulatta
...SUBJ CATG: RNA/DNA role in infection & immune response; 33345...

3/3,K/3 (Item 3 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0002744578 IP ACCESSION NO: 6446091
In ovo administration of CpG oligodeoxynucleotides and the recombinant microneme protein MIC2 protects against Eimeria infections

Dalloul, RA; Lillehoj, HS; Klinman, DM; Ding, X; Min, W; Heckert, RA; Lillehoj, EP
Animal Parasitic Diseases Laboratory, Animal and Natural Resources Institute, BARC-East, Building 1040, ARS, USDA, Beltsville, MD 20705, USA, [mailto:hlilleho@anri.barc.usda.gov]

Vaccine, v 23, n 24, p 3108-3113, May 2005
PUBLICATION DATE: 2005

PUBLISHER: Butterworth-Heinemann, 313 Washington St. Newton MA 02158 USA

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0264-410X
FILE SEGMENT: Immunology Abstracts; Algology, Mycology & Protozoology Abstracts (Microbiology C)

Dalloul, RA; Lillehoj, HS; Klinman, DM; Ding, X; Min, W; Heckert, RA; Lillehoj, EP

ABSTRACT:
... effect in reducing the oocyst output; however, it resulted in the highest and lowest Ab response before and after Eimeria tenella infection, respectively. Collectively, CpG ODNs administered in ovo demonstrated immunoenhancing...

DESCRIPTORS: CpG islands; Oocysts; Infection; Micronemes; Oligonucleotides; MIC2 protein; Coccidiosis; Vaccines; Adjuvants; Antibody response; Vaccination; Eimeria tenella; Eimeria acervulina; Eimeria

3/3,K/4 (Item 4 from file: 24)
DIALOG(R)File 24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0002611365 IP ACCESSION NO: 5978586
CpG oligonucleotides improve the protective immune response induced by the anthrax vaccination of rhesus macaques

Klinman, DM; Xie, H; Little, SF; Currie, D; Ivins, BE
Section of Retroviral Immunology, Center for Biologics Evaluation and Research, Food and Drug Administration, Bldg. 29A, Rm 3 D 10, Bethesda, MD 20892, USA, [mailto:klinman@cber.fda.gov]

Vaccine, v 22, n 21-22, p 2881-2886, July 2004
PUBLICATION DATE: 2004

PUBLISHER: Butterworth-Heinemann, 313 Washington St. Newton MA 02158 USA

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 0264-410X
FILE SEGMENT: Immunology Abstracts; Medical & Pharmaceutical Biotechnology Abstracts; Bacteriology Abstracts (Microbiology B)
CpG oligonucleotides improve the protective immune response induced by the anthrax vaccination of rhesus macaques

Klinman, DM; Xie, H; Little, SF; Currie, D; Ivins, BE

ABSTRACT:
Synthetic oligodeoxynucleotides (ODN) containing unmethylated CpG motifs act as immune adjuvants, improving the immune response elicited by co-administered vaccines. Combining CpG ODN with anthrax vaccine adsorbed (AVA, the licensed human vaccine) increased the speed, magnitude and avidity of the resultant anti- anthrax response. The protective activity of these Abs was established by passive transfer to anthrax-challenged mice. The ability of CpG ODN to accelerate and magnify the immune response to AVA suggests this strategy may contribute to

```
the development of prophylactic and therapeutic vaccines...


 3/3,K/5     (Item 5 from file: 24)
DIALOG(R)File  24:CSA Life Sciences Abstracts
(c) 2009 CSA. All rts. reserv.

0002609687        IP ACCESSION NO: 5897883
Signal transduction pathways mediated by the interaction of CpG DNA with
Toll-like receptor 9

Takeshita, F;  Gursel, I;  Ishii, KJ;  Suzuki, K;  Gursel, M;  Klinman,
DM*
CBER/FDA, Bldg 29A, Rm 3D10, Bethesda, MD 20892, USA,
[mailto:Klinman@cber.fda.gov]

Seminars in Immunology, v 16, n 1, p 17-22, February 2004
PUBLICATION DATE: 2004

PUBLISHER: Elsevier Ltd

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English
ISSN: 1044-5323
FILE SEGMENT: Immunology Abstracts
Takeshita, F;  Gursel, I;  Ishii, KJ;  Suzuki, K;  Gursel, M;  Klinman,
DM*


ABSTRACT:
...  DNA is recognized as a pathogen-associated molecular pattern, and
triggers a rapid innate immune response. CpG ODN are being harnessed
for a variety of therapeutic uses, including as immune adjuvants...
? E AU=KRIEG, ARTH?

Ref    Items  Index-term
E1         1   AU=KRIEG, ANJA
E2         1   AU=KRIEG, ARIBERT
E3         0  *AU=KRIEG, ARTH?
E4         7   AU=KRIEG, ARTHUR
E5         1   AU=KRIEG, ARTHUR F
E6        11   AU=KRIEG, ARTHUR F.
E7        67   AU=KRIEG, ARTHUR M
E8       249   AU=KRIEG, ARTHUR M.
E9         2   AU=KRIEG, B
E10      240   AU=KRIEG, B.
E11        4   AU=KRIEG, B.  L.
E12        2   AU=KRIEG, B.L.

          Enter P or PAGE for more
? S E1-E8
                 1   AU=KRIEG, ANJA
                 1   AU=KRIEG, ARIBERT
                 0   AU=KRIEG, ARTH?
                 7   AU=KRIEG, ARTHUR
                 1   AU=KRIEG, ARTHUR F
                11   AU=KRIEG, ARTHUR F.
                67   AU=KRIEG, ARTHUR M
               249   AU=KRIEG, ARTHUR M.
      S4       337   E1-E8
? S S4 AND RESPONSE
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                337  S4
           13463981  RESPONSE
      S5         67  S4 AND RESPONSE
? RD

>>>Duplicate detection is not supported for File 391.

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
      S6         59  RD  (unique items)
? S S6 AND INTERFERON
                 59  S6
            1197509  INTERFERON
      S7         16  S6 AND INTERFERON
? RD

>>>Duplicate detection is not supported for File 391.

>>>Duplicate detection is not supported for File 393.

>>>Records from unsupported files will be retained in the RD set.
      S8         16  RD  (unique items)
? T S8/3,K/16
>>>KWIC option is not available in file(s): 399

 8/3,K/16      (Item 7 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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  124115228     CA: 124(9)115228b     JOURNAL
  IFN-.gamma. promotes IL-6 and IgM secretion in response to CpG motifs in
  bacterial DNA and oligodeoxynucleotides
  AUTHOR(S): Yi, Ae-Kyung; Chace, Jacqueline H.; Cowdery, John S.; Krieg,
Arthur M
  LOCATION: Dep. Internal Med., Univ. Iowa Coll. Med., Iowa City, IA, 52242
, USA
  JOURNAL: J. Immunol.  DATE: 1996  VOLUME: 156  NUMBER: 2  PAGES: 558-64
  CODEN: JOIMA3  ISSN: 0022-1767  LANGUAGE: English
? E AU=STEINBERG, ALFRED?

Ref    Items  Index-term
E1       154  AU=STEINBERG, ALFRED D.
E2         2  AU=STEINBERG, ALFRED P.
E3         0 *AU=STEINBERG, ALFRED?
E4         1  AU=STEINBERG, ALLEN ROBERT
E5         3  AU=STEINBERG, ALLISON
E6         1  AU=STEINBERG, ALLYNA B.
E7         1  AU=STEINBERG, ALMA
E8         1  AU=STEINBERG, ALMA G.
E9         4  AU=STEINBERG, ALODIE
E10        3  AU=STEINBERG, ALODIE G
E11        3  AU=STEINBERG, ALODIE G.
E12        1  AU=STEINBERG, ALVIN

          Enter P or PAGE for more
? S E1-E3
                154  AU=STEINBERG, ALFRED D.
                  2  AU=STEINBERG, ALFRED P.
                  0  AU=STEINBERG, ALFRED?
      S9        156  E1-E3
? S S9 AND INTERFERON
                156  S9
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         1197509  INTERFERON
     S10       3  S9 AND INTERFERON
? T S10/3,K/1-3
>>>KWIC option is not available in file(s): 399

 10/3,K/1     (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2009 American Chemical Society. All rts. reserv.

  113209578     CA: 113(23)209578r     JOURNAL
  Anti-CD3 antibody induces rapid expression of cytokine genes in vivo
  AUTHOR(S): Scott, Dorothy E.; Gause, William C.; Finkelman, Fred D.;
Steinberg, Alfred D.
  LOCATION: Arthritis Rheum. Branch, Natl. Inst. Arthritis Musculoskeletal
Skin Dis., Bethesda, MD, 20892, USA
  JOURNAL: J. Immunol.  DATE: 1990  VOLUME: 145  NUMBER: 7  PAGES: 2183-8
  CODEN: JOIMA3  ISSN: 0022-1767  LANGUAGE: English


 10/3,K/2     (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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  99051670     CA: 99(7)51670v     JOURNAL
  The cellular basis for immune interferon production in autoimmune
  MRL-lpr/lpr mice
  AUTHOR(S): Santoro, Thomas J.; Benjamin, William R.; Oppenheim, Joost J.;
Steinberg, Alfred D.
  LOCATION: Arthritis Rheum. Branch, Natl. Inst. Arthritis, Diabet. Digest.
Kidney Dis., Bethesda, MD, 20205, USA
  JOURNAL: J. Immunol.  DATE: 1983  VOLUME: 131  NUMBER: 1  PAGES: 265-8
  CODEN: JOIMA3  ISSN: 0022-1767  LANGUAGE: English


 10/3,K/3     (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2009 American Chemical Society. All rts. reserv.

  74074908     CA: 74(15)74908b     JOURNAL
  Pathogenesis of autoimmunity in New Zealand mice.  II.  Acceleration of
  glomerulonephritis by polyinosinic.polycytidylic acid
  AUTHOR(S): Carpenter, D. F.; Steinberg, Alfred D.; Schur, Peter H.;
Talal, Norman
  LOCATION: Div. Biol. Stand., Nat. Inst. Health, Bethesda, Md.
  JOURNAL: Lab. Invest.  DATE: 1970  VOLUME: 23  NUMBER: 6  PAGES: 628-34
  CODEN: LAINAW  LANGUAGE: English
```